# 2. Further Contributions to the Knowledge of the Phytophagous Coleoptera of Africa, including Madagascar. By MARTIN JACOBY, F.E.S.

# PART I.

# [Received January 5, 1897.]

# (Plate XVII.)

Since my last papers on African Phytophaga in the Transactions of the Entomological Society of London for 1895 and in the 'Deutsche entom. Zeitschrift' of the same year, a good deal of new material has come into my hands. M. Alluaud, of Paris, has kindly submitted to me the Madagascar species obtained by him, which, as the number of species was not large, I have included here, although the fauna of Madagascar has little in common with that of Africa, while Mr. Guy Marshall has been busy collecting in Natal and Mashonaland with good results; and although not much is gained for science, in my opinion, by continuing to add new species to the already enormous material known and unknown, it is to be hoped that one day we shall be enabled to work out a Biologia of the country now under investigation, as has been done in the case of Central America with such splendid results by Messrs. Godman and Salvin.

The present paper deals only with the *Criocerina*, *Cryptocephalina*, and *Clythrina*; the other families I hope to deal with in a future paper. Types of all the species are contained in my collection and in that of the British Museum.

#### LEMA PRINCEPS, n. sp.

Rufous; the antennæ (the basal joints excepted) and the tarsi black; thorax foveolate at the sides; elytra metallic bright blue or violaceous, deeply foveolate below the base, strongly punctatestriate.

Length  $3\frac{1}{2}$  lines.

Head impunctate, bituberculate between the eyes, the clypeus and labrum black; antennæ long and slender, black, the lower five joints rufous, the fourth joint one-half longer than the third one, the fifth very elongate; thorax not longer than broad, the sides moderately constricted, rather strongly produced above the constriction, the base with a deep transverse sulcus, a small transverse fovea is also placed immediately above the constriction at the sides, the disc with two rows of punctures at the middle, some other punctures also placed near the anterior angles; scutellum fulvous, not longer than broad; elytra with a deep depression below the base near the suture, bright metallic blue, strongly punctate-striate, the punctures slightly elongate and distinct to the apex, the interstices at the latter place strongly costate, the others flat and smooth; underside and legs fulvous, nearly impunctate; the sides of the breast clothed with short golden-yellow pubescence; terminal joints of the tarsi more or less black.

Hab. West Coast of Africa.

Amongst the large-sized metallic-blue species of Africa, the present one may be known by the colour of the antennæ, their slender shape, the sculpturing of the thorax, and the deep elytral impression and their strong punctuation, as well as by the colour of the tarsi. I received several specimens from Mr. Alluaud in Paris.

# LEMA MARSHALLI, n. sp. (Plate XVII. fig. 2.)

Greenish black; the vertex and the thorax fulvous, the latter with two spots on the disc and the base greenish; elytra fulvous, strongly punctate-striate; a spot on the shoulder, the suture, and a transverse spot across the latter, below the base, metallic dark green.

Length 3 lines.

Head strongly and remotely punctured, the vertex fulvous with two greenish spots and a central similarly-coloured fovea; eyes deeply notched; lower portion of face greenish black; the entire head sparingly clothed with fulvous short hairs; palpi long and slender, black; antennæ rather short, greenish black, pubescent, the fifth and following joints gradually but slightly widened; thorax about one-half broader than long, the sides but moderately constricted, the anterior angles slightly tuberculiform, the surface with two rows of central punctures and some others anteriorly, fulvous, two triangular-shaped spots at the middle and a transverse band occupying the basal portion below the sulcus greenish black; scutellum of the same colour, subquadrate, sparingly pubescent; elvtra with a slight depression below the base, reddish fulvous, deeply and regularly punctate-striate, the interstices longitudinally costate at the apex; an elongate spot on the shoulders, a transverse short spot across the suture below the base, and the suture itself narrowly metallic dark green ; underside and legs greenish black.

Hab. Natal (collected by Mr. G. Marshall).

Of this handsome species, two specimens were obtained by Mr. Marshall in the neighbourhood of Natal. This *Lema* seems very closely allied to *L. insignis*, Lac., likewise from Africa, in regard to coloration; but is smaller, the thorax is distinctly broader than long (not scarcely so long as broad as in *L. insignis*), the elytra have only a shallow depression below the base, not a deep one, and the band and subquadrate spot of which Lacordaire speaks are absent.

## LEMA BREVICORNIS, n. sp.

Below blackish; antennæ very short, black; basal and apical joint fulvous; head and thorax obscure dark fulvous, minutely punctured; elytra greenish black, strongly punctate-striate; last abdominal segment and the legs more or less flavous.

Length 1<sup>1</sup>/<sub>2</sub> line.

Head dark fulvous, the vertex very convex, not constricted behind the eyes, minutely punctured, the sides and the middle deeply longitudinally sulcate; eyes large, very slightly notched; antennæ extending to the base of the thorax only, the lower five and the apical joint fulvous, the others black, basal joints very short, nearly moniliform, the following five joints transverse, broader than long: thorax scarcely longer than broad, the sides but very little constricted at the base, the surface without a sulcus, very minutely punctured and finely granulose, of a dark fulvous colour, with a slight æneous gloss; scutellum broader than long; elytra with a slight depression below the base, closely and strongly punctatestriate, the punctures rather elongate, the interstices flat, except near the extreme apex, impunctate; legs flavous, the femora marked with piceous at the middle; breast and abdomen greenish black, the last abdominal segment flavous.

Hab. Tsipango, Natal (G. Marshall); also Mashonaland.

This is a very interesting little Lema, and unlike any other with which I am acquainted, on account of the very short antennæ and their transversely-shaped joints and the scarcely constricted thorax. I have seen six specimens of this species.

#### LEMA FUSCITARSIS, n. sp.

Testaceous; the apical joints of the antennæ and the tarsi more or less fuscous; head and thorax impunctate; elytra very deeply punctate-striate, the interstices at the apex convex.

Length 2 lines.

Head scarcely constricted behind the eyes, impunctate, the space between the eyes strongly swollen, with a deep central fovea, the supraocular grooves moderately deep, with some yellow pubescence; eyes not very deeply notched; antennæ scarcely extending to the middle of the elytra, the basal joint short and thick, the second very short, the third and fourth equal, twice as long as the second one, the apex of each joint slightly stained with fuscous, the terminal joints entirely of that colour; thorax not longer than broad, the sides moderately constricted, the basal sulcus not very deep, the disc entirely impunctate, shining; scutellum with the apical margin emarginate; elytra scarcely perceptibly depressed below the base, deeply foveolate-punctate at the base, less strongly punctured posteriorly, the interstices not raised, except at the sides and apex; underside entirely testaceous, clothed with fine yellow pubescence; the legs of the same colour, the apex of each tarsal joint and the claws fuscous.

Hab. Tsipango (Natal); collected by Mr. G. Marshall.

Allied to L. infima, Lac., from Senegal, but differing in the colour of the antennæ and tarsi, in the impunctate head and thorax, and the deep elytral punctuation at the base; the punctures at the lower portion are rather elongate in shape and as large as the space

dividing each puncture; in one specimen the last joint of the antennæ is fulvous, the preceding ones fuscous, and the basal joints as in the type.

LEMA SEMIPURPUREA, n. sp.

Black, with bluish gloss; antennæ short; thorax with rounded sides, finely punctured; elytra purplish or bluish, deeply and closely punctate-striate, the ninth row entire.

Length  $2\frac{1}{2}$  lines.

Head with some deep punctures at the vertex, the latter with two obscure small fulvous spots, more or less distinct, and a central longitudinal groove, frontal elevations absent, the space surrounding the eyes rugose; antennæ scarcely extending to the middle of the elytra, black, pubescent, the fifth and following joints rather robust and widened, one-half longer than broad; thorax subquadrate, scarcely one-half broader than long, but very moderately constricted at the sides, the anterior half rather widened or thickened, but rounded, the anterior angles not produced, the basal sulcus deep, the space at the sides within the constriction transversely rugose, the rest of the surface finely punctured throughout, with some larger punctures intermixed; scutellum not longer than broad; elytra subcylindrical, without basal depression, metallic purplish or bluish, deeply and strongly punctured, the punctures large and closely placed, but diminishing at the apex, where the interstices are as usual, convex; underside and legs black, with a bluish gloss, the posterior femora only extending to the second abdominal segment.

Hab. Mashonaland (G. Marshall).

From the smaller metallic species of Lema from Africa, L. semipurpurea is well distinguished by the shape and punctuation of the thorax, the former is far more approaching to a cylindrical shape than is the case in most species from that region, although not to the extent that is found in two or three species; the glabrous upper surface and want of an elytral depression separate the species from L. azurea, Klug, and its allied forms.

LEMA TARSATA, n. sp. (Plate XVII. fig. 1.)

Head, antennæ (the basal four joints excepted), the breast, and the tarsi black; thorax flavous, foveolate, and punctured; elytra deeply punctate-striate, flavous, the suture and the lateral margins bluish; legs and abdomen flavous.

Var. Elytra without dark bands, underside entirely black.

Length 2 lines.

Head black, strongly rugose and finely pubescent, the neck more or less fulvous, sometimes with a small black central spot, the space between the eyes with a deep central groove; labrum and palpi black; antennæ extending to the middle of the elytra, black, the lower four joints flavous, terminal joints rather robust, twice as long as broad; thorax subquadrate, one-half broader than long, the sides strongly widened towards the apex, the latter with a

PROC. ZOOL. SOC.-1897, No. XVI.

16

small tubercle at the anterior angles; the surface flavous, strongly punctured at the middle, with two foveæ placed anteriorly near the middle, and another more transverse one at each side, the basal sulcus deep, the anterior margin sometimes with a small black spot at the middle; scutellum black, its apex truncate; elytra not depressed below the base or scarcely so, with regular rows of moderately strong punctures, which get much finer towards the apex, where they are slightly elongate in shape, the ninth row entire, the margins narrowly, the suture more broadly bluish black; underside black; the abdomen more or less fulvous; legs flavous, the tarsi black.

Hab. Natal, Estcourt, 4000 ft. (G. Marshall).

Allied to *L. aperta*, Lac., in coloration, but quite distinct on account of the lateral and central thoracic foveæ; in the variety, of which several specimens are before me, there is no trace of any elytral blue bands, but in other respects these specimens agree in everything. Mr. Marshall found this species under bark of trees.

### LEMA CONSOBRINA, n. sp.

Black, thorax impunctate, bifoveolate; elytra metallic blue, strongly punctate-striate, depressed below the base; posterior femora at the lower portion fulvous.

Length 2 lines.

Head impunctate, black, the space between the eyes with two strongly raised elongate tubercles; eyes deeply emarginate; antennæ extending to the middle of the elytra, black, pubescent, the third and fourth joint elongate, the fifth the longest, terminal joints longer than broad; thorax one half broader than long, the sides obliquely diverging outwards from the sulcation, the anterior angles rather acute, the disc impunctate, black, with a deep transverse subbasal sulcus and two small foveæ anteriorly at the sides : scutellum truncate at its apex; elytra distinctly depressed below the base, metallic blue; the punctures regular and rather deep, extending to the base and apex, the ninth row entire, the interstices flat and impunctate, except near the extreme apex; underside and legs black, the posterior femora, their apex excepted, fulvous.

Hab. Mashonaland (G. Marshall).

Closely allied to *L. affinis*, Clark, and *L. rufo-femorata*, Cl.; but differing from the former in the sculpture of the head and in the black abdomen, also in its smaller size, and from the latter in the black, not blue, colour, the bifoveolate thorax, and smooth, not rugose, elytral interstices.

Two specimens are before me.

CRIOCERIS CYLINDRICOLLIS, n. sp.

Obscure fulvous; the antennæ, tibiæ, and tarsi black; thorax subcylindrical, with two rows of punctures; elytra pale fulvous, regularly and deeply punctured, the interstices convex at the apex. 1897.]

Length  $2\frac{1}{4}$  lines.

Head impunctate at the vertex, the space round the eyes finely punctured and pubescent, with a short central groove; antennæ very short and robust, black, the basal two joints fulvous; thorax subcylindrical, but slightly constricted at the base; the sulcus indistinct and placed close to the base, the disc with two rows of rather deep punctures at the middle and a few others near the anterior angles; elytra with deep round punctures, placed in closely approached rows, the punctuation getting finer towards the apex, the interstices sparingly impressed with minute punctures, convex near the apex, there are some slight transverse wrinkles to be seen below the base; underside and the femora fulvous, clothed with extremely short yellow pubescence, tibiæ and tarsi piceous or black.

Hab. Madagascar, Diego-Suarez (C. Alluaud).

Smaller than C. livida, Dahlm.; the thorax more cylindrical and with two rows of punctures only; the antennæ also differently coloured.

#### CRIOCERIS MADAGASCARIENSIS, n. sp.

Dark fulvous; antennæ short, the last four joints black; thorax flat, strongly and closely punctured; elytra finely punctate-striate, the interstices sparingly and finely punctured.

Length 3 lines.

Head deeply constricted at the base, with a short central and deep lateral grooves; eyes deeply notched; clypeus finely punctured; palpi filiform; antennæ extending to the base of the thorax only, the second joint moniliform, third and fourth short, equal, the following joints triangularly widened, the terminal ones strongly transverse, the lower seven joints fulvous, the others black; thorax subquadrate, slightly longer than broad, but moderately constricted at the middle, the anterior angles rounded, the surface rather flattened, strongly, irregularly, and closely punctured, the space near the base nearly impunctate, with a very feeble transverse sulcation; scutellum narrowly elongate; elytra not depressed below the base, nor raised near the scutellum, with very regular rows of punctures, which are larger anteriorly on the inner disc, the interstices flat, with a single row of fine punctures which are more or less interrupted, lateral margin strongly thickened; underside nearly smooth and impunctate; tarsi blackish.

Hab. Madagascar, Diego-Suarez (Alluaud).

Closely allied to *C. antennalis*, Lac., also from Madagascar; but smaller, the last four, not five joints of the antennæ black, the thorax much more strongly and closely punctured, and the elytral interstices likewise finely punctulate. *C. dimidiaticornis*, Lac., is described as having the antennæ one-third the length of the body, the interstices of the elytra finely alutaceous and convex posteriorly, and the apex of the tibiæ black as well as the tarsi. M. Alluaud has sent me three specimens of the present species which show no differences in any way.

#### PEDRILLIA MADAGASCARIENSIS, n. sp.

Fulvous, pubescent; the apical six joints of the antennæ, the apex of the tibiæ, and the tarsi, black; thorax finely, elytra strongly punctured.

Length  $1\frac{1}{2}$  line.

Head broad, very sparingly and finely punctured, with some few hairs; clypeus narrow, semicircular; antennæ widely separated at the base, extending scarcely beyond the base of the elytra, fulvous, the terminal seven joints black; thorax but slightly broader than long, constricted below the middle, the latter projecting angularly, the disc with a shallow transverse groove near the base, the sides below the groove thickened, with some stiff bairs, the surface finely and remotely punctured, each puncture provided with a blackish stiff hair: scutellum subtriangular, punctured and pubescent; elytra slightly flattened along the suture, broader at the base than the thorax, much more strongly punctured than the latter and sparingly clothed with yellowish hairs; underside and legs fulvous; the apex of the posterior femora, (sometimes) that of the tibiæ and the tarsi, black.

Hab. Madagascar, Diego-Suarez (Alluaud).

This is the first species of the genus known to me from this locality. In the collection of M. Alluaud and my own.

### HEMYDACNE, n. g.

Elongate, parallel : head broad, not constricted ; antennæ widely separated, filiform ; eyes small, slightly emarginate; thorax narrowed at the base, without lateral margin ; elytra wider than the thorax, deeply punctate-striate ; first two abdominal segments much longer than the following ones ; posterior femora slightly incrassate ; the four posterior tibiæ with a tooth near the apex ; the first tarsal joint as long as the two following ones, claws appendiculate ; prosternum proportionately broad, yet twice as long as broad, its base truncate.

The insect for which this genus is proposed is difficult to place in any of the earlier groups of Phytophaga, since it exhibits a number of characters peculiar to several of them; thus the widely separated antennæ and the broad head agree with *Megascelis*, the thorax is somewhat similar to *Orsodacna*, but the broad prosternum and the posterior tibiæ widened into a tooth at the apex are not found amongst any of these sections. The insect had perhaps best find its place near *Orsodacna* at present, but would form a special group if other similarly structured species should be found.

HEMYDACNE MACULICOLLIS, n. sp. (Plate XVII. fig. 3.)

Below black, above and the legs testaceous; head with one, the thorax with two black spots, remotely punctured; elytra deeply punctate-striate; the interstices longitudinally costate, flavous, the suture black.

Length  $1\frac{1}{2}$ -2 lines.

Head with a few fine punctures, testaceous or flavous; the vertex with a triangular black spot; clypeus not separated from the face; labrum deeply emarginate; apex of the mandibles black; palpi rather robust; antennæ inserted below the inner margin of the eyes, not extending to the middle of the elytra, testaceous, the second joint one-half shorter than the third, this latter shorter than the fourth, the following joints elongate, the terminal ones shorter again and slightly thickened; thorax gradually narrowed towards the base, about one-half broader than long, the surface remotely but rather strongly punctured, with an obsolete transverse depression near the base, the disc flavous or testaceous, with a triangular black spot at the middle of the anterior margin and another at the middle of the base, the flanks of the thorax likewise black; elytra with rows of deep and regular punctures, all the interstices longitudinally costate, the lateral margin not visible from above, narrowly black, like the suture ; underside black ; legs flavous or testaceous.

Hab. Madagascar, Diego-Suarez (C. Alluaud).

MIOPRISTIS (LOPHOBASIS) NATALENSIS, n. sp. (Plate XVII. fig. 5.)

Black, pubescent, lower portion of the face flavous; thorax flavous with two large black spots, coarsely punctured; elytra finely and closely punctured, flavous or testaceous, the margins narrowly and a spot on the shoulders black, the base with a ridge.

Mas. The anterior legs very long, femora robust, tibiæ curved, tarsi slender.

Fem. Legs equal, entirely flavous; the elytra more closely and strongly punctured.

Length 3-3<sup>1</sup>/<sub>2</sub> lines.

 $\sigma$ . Head black at the upper portion and closely pubescent, the sides prolonged below the eyes, these small, feebly notched below; clypeus flavous, deeply triangularly emarginate at the anterior margin; mandibles broad, flavous, strongly curved inwards at the tip, the latter black; palpi flavous, the apex black; antennæ extending to about the base of the thorax, black, the lower three joints fulvous, the basal joint black above, the second and third short, equal, the following joints very strongly triangularly dentate and widened; thorax twice as broad as long, the sides and the posterior angles rounded, the surface sparingly and coarsely punctured, flavous, shining, the disc more or less fulvous, with a large black subquadrate spot at each side of variable size; scutellum black, pubescent at its base, its apex truncate; elytra with a narrow transverse ridge at the basal margin, closely punctured in irregular rows, flavous, opaque, the sutural and lateral margins very narrowly black, the shoulders with a small black spot; underside and the legs black, the extreme base of the femora and the tibiæ more or less flavous; the first joint of the anterior tarsi in the male as long as the following two joints together.

Hab. Natal, Estcourt (G. Marshall).

This and the following species seem to me to find their places best in Lacordaire's subgenus *Lophobasis*, on account of the basal ridge of the elytra, although some of the other structural characters do not agree with the genus, but in that respect scarcely two species are similar amongst these variable insects. Of both sexes a good many specimens are before me : in some the elytra are without the dark margins and the thoracic spots are much smaller; the females differ much in the more strongly and closely punctured elytra, which are also more shining, and in having entirely flavous legs.

MIOPRISTIS SUBRUGOSA, n. sp. (Plate XVII. fig. 7.)

Black, pubescent; the clypeus and the legs fulvous; thorax remotely and strongly punctured, flavous with two large black spots; elytra very closely and strongly punctured, testaceous, a spot on the shoulder and three others placed triangularly near the apex, black.

Var. Some or all the elytral spots absent.

Mas. The anterior legs elongate, the tibiæ strongly curved.

*Fem.* Legs normal, thorax and elytra nearly rugosely punctured. Length  $2\frac{1}{2}$ -3 lines.

Head pubescent and of the same sculpture and colour as in the preceding species; the antennæ also exactly similar, as well as the thorax; elytra with the basal margin likewise in shape of a ridge, very closely and strongly punctured, with an elongate spot on the shoulders and three round spots near the apex black—of these latter, one is placed close to the suture and two near the lateral margin, forming together a triangle; legs fulvous, the femora above and the tarsi black.

Hab. Natal, Estcourt (G. Marshall).

Closely allied to the preceding species, but quite distinct on account of the almost rugose punctuation of the elytra and their pattern; and even if the spots of the elytra are absent, both sexes may be at once known from *M. natalensis* by their sculpture, which renders the elytra opaque, the female of the last-named species, on the contrary, having the elytra distinctly shining; the spots of the thorax are as variable as usual in these insects.

MIOPRISTIS ATROFASCIATA, n. sp. (Plate XVII. fig. 6.)

Fulvous, the upper part of the head, the tibiæ, tarsi, and sides of the breast black; thorax nearly impunctate; elytra with fine rows of punctures, fulvous, a triangular band at the base, and a transverse spot below the middle, black.

Mas. The anterior legs elongate; the first joint of the tarsi as long as the two following joints together.

Length 3 lines.

Head strongly covered with transverse and longitudinal strigæ, the vertex smoother, black, in shape of a transverse band with its anterior edge concave, lower portion of face fulvous, the anterior margin of the clypeus deeply triangularly emarginate, eyes moderate, distinctly notched, sides of the face produced into a transverse ridge; mandibles robust, fulvous, the apex angularly curved, black; antennæ extending to the base of the thorax, black, the lower five joints flavous, basal joint widened and curved, third one-half longer than the second, fourth more elongate, the others triangularly widened; thorax twice as broad as long, the sides strongly rounded, the posterior angles distinct, the sides with a narrow reflexed margin, the disc very strongly convex, sulcate near the anterior margin at the middle, strongly punctured at the same place, the rest of the surface impunctate, reddish fulvous or rufous; scutellum broad, black, its apex slightly raised: elytra parallel, finely punctured in widely separated rows, fulvous, the base with a transverse black band, which is gradually widened towards the suture and is slightly obliquely cut at the same place; it extends as far as the shoulders only, where it ends in a spot; below the middle is another transversely subquarate short band: the underside and the base of the femora fulvous, the apex of the anterior femora and all the tibiæ and tarsi, as well as the sides of the breast, black.

Hab. Natal, Estcourt (G. Marshall).

Both male and female specimens are before me; the anterior legs of the former are, as usual, very elongate and their tibiæ curved. The system of coloration in this species differs from any of those placed in this genus; but I see no structural differences of importance to separate it from *Miopristis*, although it might perhaps be equally well placed in *Antipus*. The females only differin the shorter legs and less transverse thorax, the mandibles also are smaller.

## MELITONOMA EPISTOMALIS, Lac.

The specimens which Mr. Marshall obtained at Mashonaland agree very nearly with Lacordaire's description. The species differs from any other contained in the genus by the truncate margin of the epistome, which leaves a cavity exposing broadly the labrum; this cavity is bounded at the sides by flattened projections, which are turned inwards (Lacordaire says "tubercles"). All the specimens before me have the thorax marked with two large black spots joined at the base, and the elytra instead of having five spots have only one on the shoulder, a transverse band at, and another below, the middle black; as the elytral spots are often confluent in these insects I do not think that the Mashonaland specimens represent a new species, but only a variety.

In the female the head is normal.

## PEPLOPTERA QUADRIPUNCTATA, n. sp.

Black ; thorax rufous, finely punctured ; elytra rather strongly and closely punctate-striate, flavous, two spots near the base and two behind the middle, placed transversely, black.

Length  $3\frac{1}{2}$  lines.

Head black, the vertex rather closely and finely punctured, the space between the eyes with a round fovea, strongly and closely punctured; antennæ not extending to the base of the thorax,

[Feb. 2,

black, the lower three joints fulvous; thorax rather more than twice as broad as long, narrowed in front, the sides but slightly rounded, the surface very finely but not closely punctured, with a slight depression near the posterior angles, which is a little more strongly punctured, basal lobe broadly produced, narrowly margined with black as well as the anterior margin at the middle; scutellum broader than long, black, shining; elytra strongly lobed at the sides below the shoulders, very closely and rather regularly punctured in rows, flavous or fulvous, a small spot on the shoulders, another near the suture below the scutellum, and two rather larger ones below the middle, placed transversely, black, of these spots the inner ones are the largest; underside and legs clothed with yellowish pubescence, tarsi broad and robust.

Hab. Praetoria, also East Africa.

Closely allied to *P. eckloni*, Lac., but the thorax without any band or spots and the general size smaller. The two specimens contained in my collection agree in every way with each other; for all that, it may be that the species represents but a variety of *P. eckloni*.

## PEPLOPTERA COLLARIS, n. sp.

Black ; basal joints of the antennæ fulvous ; thorax convex, impunctate, fulvous, the base with two large black spots ; elytra finely and remotely punctured, flavous, a sutural and lateral narrow stripe black.

Length 4 lines.

Head black; the vertex convex and smooth, the other part fiuely rugose and depressed between the eyes; the clypeus more sparingly punctured; labrum and palpi black; antennæ only extending to the middle of the thorax, black, the lower four joints fulvous, basal joint strongly incrassate; thorax twice as broad as loug, the sides rounded, the anterior margin concave, the surface rather strongly convex, impunctate, reddish fulvous, the base with a large subquadrate black patch at each side, extending upwards to the middle, but both well separated; scutellum black, its apex truncate ; elytra finely but distinctly punctured in semi-regular but rather widely separated rows, flavous, the suture with a narrow black band, not extending to the base, the sides with a similar band (leaving only the basal lobe of the groundcolour), abbreviated near the apex, the extreme apical margin likewise narrowly black; underside and legs black, fiuely pubescent, the tarsi broad and robust.

Hab. Tabora, Ounyamyembe.

Of this species I possess a single example; it is a comparatively large species, and differs from its congeners in the broad subquadrate black patches of the thorax in connection with the sculpture and pattern of the elytra.

PEPLOPTERA FULVITARSIS, n. sp.

Subcylindrical, black; thorax extremely finely punctured, rufous a central elongate and two lateral round spots black; elytra

# 1897.] PHYTOPHAGOUS COLEOPTERA OF AFRICA.

flavous, strongly and semi-regularly punctured, a spot on the shoulders and a transverse band near the apex black; tibiæ and tarsi flavous.

249

Length  $3-3\frac{1}{2}$  lines.

Head black; the vertex smooth, convex, the lower portion rugose-punctate; antennæ scarcely extending to the middle of the elytra, black, the lower four joints fulvous; thorax with strongly deflexed sides, the lateral margins but slightly rounded, the surface subcylindrical, extremely sparingly and finely punctured, reddishfulvous, a short elongate spot at the middle and a small spot at each side black; scutellum broad, black; elytra with closely approached rows of strong punctures, which are rather irregularly placed at the base, flavous, a spot on the shoulder and a transverse band at some distance from the apex extending to the sides black; underside closely pubescent, the greater portion of the tibiæ and the tarsi flavous.

Hab. Delagoa Bay, Zambezi River.

Of this species I possess three specimens, which agree very nearly with each other, except that in two of them the small lateral spot on the thorax is wanting. I am unable to find any species or variety described by Lacordaire or others which agrees with the present insect; there are no lateral stripes of the elytra or sutural ones, as in so many species of this genus, and the punctuation of the elytra is strong and closely placed; the tibiæ and tarsi in all the specimens are nearly entirely fulvous.

## PEPLOPTERA ANGULATO-FASCIATA, n. sp.

Black ; thorax fulvous, with a short central black stripe, the sides punctured ; elytra paler, strougly punctured anteriorly ; a spot on the shoulders and an angulate narrow band below the middle black.

Length  $3\frac{1}{2}$  lines.

Subcylindrical; the vertex convex, finely punctured, with a deep central groove; lower portion of face rugose; antennæ extending to half the length of the thorax only, fuscous, the lower four joints fulvous; thorax twice as broad as long, the sides nearly straight, narrowed anteriorly, the median lobe slightly produced, truncate, the surface convex, reddish fulvous, with some distinct punctures near the anterior margin and at the posterior angles, as well as along the basal margin, the latter at the middle narrowly black, the centre with another short longitudinal black stripe; scutellum black, impunctate, its apex truncate; elytra distinctly lobed at the sides below the shoulders, strongly punctured in closely approached, semi-regular rows, the posterior portion nearly impunctate; the shoulders with an elongate black spot, a strongly angulate narrow transverse band is placed immediately below the middle, the angulate portion being directed towards the apex; the suture is likewise black near the extreme apex; underside and legs strongly pubescent; legs and tarsi very robust.

Hab. Trausvaal.

Of this species I possess two specimens; they are at once distinguished by the strongly angulate band which forms a right angle near the sides, without extending to either margin.

PEPLOPTERA HUMERALIS, n. sp.

Subcylindrical, black, clothed with grey pubescence below, above fulvous; thorax minutely punctured, the sides and the anterior margin fulvous, the base black; elytra regularly punctatestriate, fulvous, the snture and the lateral margin posteriorly, a broad transverse band near the apex, and an oblique stripe on the shoulder black.

Var. Thorax fulvous, with three black bands; elytra more finely punctured, the posterior band absent; rest as in the type; tibiæ fulvous.

Length 4 lines.

Head finely and closely punctured, black; the vertex swollen, separated by a transverse groove from the face; eves large, but slightly notched; antennæ extending to half the length of the thorax, black, the lower three joints fulvous; thorax scarcely twice as broad as long, the sides nearly straight at the base, evenly rounded in front, the surface convex, extremely minutely and sparingly punctured, black, the sides and the anterior margin narrowly fulvous, this colour narrows gradually towards the base, but widens into the black portion at its anterior margin at each side; scutellum black, small; elytra rather strongly and regularly punctate-striate, the punctures much finer and irregular near the apex, the space between the shoulders and the lateral margins impunctate, each elytron with about nine or ten rows of punctures, of which some are more closely approached than others, especially those near the suture and at the sides, the colour flavous or pale fulvous, a broad black band is placed across the suture near the apex, sending upwards a narrow sutural branch as well as a marginal one, both of which extend slightly beyond the middle of the elytra, another oblique short stripe, directed inwards, is placed on the shoulders, not touching the lateral band, the extreme lateral and apical margins are likewise black; underside and legs of the same colour, densely clothed with silvery-grey pubescence; tarsi broad, prosternal ridge distinct.

Hab. Lake Nyassa; var. Port Natal.

This and the following species of *Peploptera* (Diapromorpha) seem to be distinct from any species described by Lacordaire or since, although closely allied to many of them, nor do they agree with any of the varieties given, and I must look npon them as distinct; the general coloration is, however, more or less the same in nearly all species, which makes their determination very difficult unless other characters are taken in connection. The present species seems closely allied to *P. postica*, Lac., but differs in several details, principally in the oblique elytral shoulder-stripe, which is not found in any of the allied species; the variety agrees in that respect, but the posterior band is absent and the thorax is fulvous, with three longitudinal black bands; this design is peculiar to many species and subject to great variation; all the tibiæ in this variety are likewise fulvous, and the locality is a different one, the elytral punctuation also differs: in spite of all this, the differences are so entirely those of degree, and the elytral pattern and direction of the bands are so similar, that I believe to be right in looking upon this form as a local variety only, more especially as the wide distribution of African insects is well known.

PEPLOPTERA LATERALIS, n. sp.

Black; thorax impunctate, rufous with a central black spot; elytra finely and semiregularly punctured, flavous, a sutural and sublateral stripe, as well as the lateral margins, black; tibiæ fulvous.

Length  $3\frac{1}{4}$  lines.

Head and antennæ as in the preceding species; thorax rufous, very narrowly edged with black, the sides slightly rounded, straight at the base, the surface entirely impunctate, the space in front of the scutellum depressed, with a few punctures, the middle with a narrow black stripe not extending to the apex; scutellum black, small; elytra flavous, with rows of small punctures rather regularly placed, which nearly disappear near the apex; the suture to the whole extent narrowly black, forming a baud which is slightly widened near the apex and angulate below the base, another narrow and regular band, slightly narrowed at its middle, extends from the shoulder nearly to the apex, the lateral margin from the middle downwards is likewise narrowly edged with black; underside clothed with silvery pubescence; tibiæ fulvous; tarsi very broad.

Hab. Tabora, Ounyamyembe.

In this species the lateral black stripe of the elytra is placed not at, but before the margin, leaving a space as broad as the band itself between the latter and the lateral edge; in this respect the species differs from any of its allies. A single specimen is contained in my collection.

# LACHNÆA MARSHALLI, n. sp. (Plate XVII. fig. 4.)

Black; the head and thorax finely pubescent, the anterior margin and the sides of the latter flavous; elytra very finely punctured, fulvous, each with four small black spots placed transversely (2.2).

Length 4 lines.

Head closely rugose and sparingly pubescent, the vertex finely punctured, the front with a longitudinal central groove, anterior margin of the clypeus triangularly emarginate, mandibles large; antennæ extending to the base of the thorax, black, the apex of the first, and the second and the third joint entirely, fulvous, third joint very short, fourth triangularly elongate, the following joints very strongly transversely widened; thorax more than twice as broad as long, the sides strongly rounded, as well as the posterior angles, the surface finely and closely punctured, clothed with whitish long pubescence, black, the anterior and lateral margins narrowly flavous; scutellum raised, black, its apex truncate; elytra opaque, very finely punctured, fulvous, with four small black spots, one on the shoulders, another lower down near the suture, and two placed transversely immediately below the middle; underside and legs black, pubescent, anterior legs very elongate, the tibiæ slightly curved and mucronate at the apex, the first joint of the tarsi elongate, as long as the following two joints together.

Hab. Natal, Ulundi, on flowers at the summit of Niginya, 6500 ft. (Marshall).

Very closely allied to L. marginata, Lac., but the epistome only moderately concave at the anterior margin; the first joint of the antennæ black, and the following two joints fulvous only, instead of the first four joints of that colour; the elytra reddish fulvous, not pale testaceous, and with four spots only instead of five, the spots of nearly equal size; there are two male specimens before me which are exactly similar in these respects.

## GYNANDROPHTHALMA ELONGATA, n. sp.

Pale flavous or fulvous, antennæ (the three or four basal joints excepted) black; thorax impunctate; elytra with rows of very fine punctures.

Length  $1\frac{1}{2}$ -3 lines.

Of narrowly elongate shape, the female double the length of the male; the head impunctate, the upper portion slightly swollen, obsoletely depressed between the eyes; the clypeus broad and flattened, impunctate, its anterior margin semicircularly emarginate; eyes prominent, slightly notched at their lower portion; antennæ extending to the base of the thorax, black, the lower three or four joints fulvous, the third extremely small, the fifth and following joints very strongly transverse; thorax twice as broad as long, the sides moderately rounded, but slightly narrowed anteriorly, the angles rather obtuse, posterior margin straight at the sides, its median lobe very slightly produced, straight, the base slightly depressed in front of this lobe, with a few distinct punctures, rest of the surface entirely impunctate; scutellum triangular; elytra subcylindrical, with rows of very fine punctures rather distantly placed; abdomen flavous like the rest of the underside; the first joint of the posterior tarsi as long as the following two joints together.

Hab. Sierra Leone, Rhobomp, also Togo, Central Africa.

Evidently very closely allied to *G. miochiroides*, Lefèbv., from Abyssinia, but the author describes his species as having a finely punctured thorax and smooth elytra, which is not the case in the present insect; the female is of very elongate shape, and double the size of the male, but differs in no other way: the insect cannot be mistaken for *Miochira filiformis*, Lac., which has a similar elongate shape and colour, but differs in the structure of the tarsi.

## GYNANDROPHTHALMA NATALENSIS, n. sp.

Elongate, narrow, black, the vertex with two small fulvous spots; thorax impunctate; elytra very strongly and semi-regularly punctured, fulvous, a spot below the middle, near the suture, black.

Var. Elytra without spots.

Length 2 lines.

Of narrow, nearly cylindrical shape; the head impunctate at the vertex, the latter with a small fulvous spot above the eyes, lower portion rugosely punctured, the middle with a distinct round fovea; antennæ scarcely extending to the base of the thorax, black, the second and third joints obscure fulvous; thorax more than twice as broad as long, the sides obliquely rounded, narrowed in front, the surface rather convex, entirely impunctate, shining black; scutellum very broad, triangular, the apex slightly raised, the surface impunctate; elytra very strongly punctured in closely-approached semi-regular rows, the sides with a more or less distinct narrow costa from the shoulder to the apex, a small black spot is placed near the suture below the middle; underside and legs covered with greyish pubescence, black; the first joint of the tarsi scarcely longer than the second.

Hab. Natal.

The narrow subcylindrical shape of this species, the colour of the head and thorax, and the two small fulvous spots on the vertex will help to distinguish it from any of its allies. I possess three specimens, two of which are without the elytral spots.

#### GYNANDROPHTHALMA ATRIPENNIS, Lac.

Specimens were obtained by Mr. G. Marshall at Estcourt, Natal, which entirely agree with Lacordaire's description: a specimen in my collection is, however, of an entirely pale fulvous colour, but differs in no other way whatever; it was likewise obtained at Natal. Lacordaire in his description gives the thorax as twice as long as broad, which of course should be reversed, it being evidently a misprint.

### GYNANDROPHTHALMA SEMINIGRA, Jac.

I have now found, unfortunately too late, that this species, described by me in the 'Entomologist,' 1891, is identical with *Clythra intersecta*, Illig.

CRYPTOCEPHALUS LIVINGSTONI, n. sp. (Plate XVII. fig. 11.)

Black; thorax coarsely punctured, flavous, with a transverse black band; elytra strongly punctate-striate, the interstices finely wrinkled, flavous, two connected spots at the base, another below the middle, and the extreme margins black.

Var. a. Thorax black, narrowly margined with flavous.

Var. b. Thorax as in the type; elytra with a single shoulderspot only.

Length  $1\frac{1}{2}$ - $1\frac{3}{4}$  line.

Head strongly rugosely punctured, black, sparingly pubescent; the anterior portion of the clypeus flavous : antennæ extending to the middle of the elytra, slender, black, the basal joint flavous below, the third joint slightly shorter than the fourth; thorax with the sides almost straight, much narrowed anteriorly, the surface strongly and closely punctured, especially at the sides, flavous, the middle of the disc with a broad transverse black band, the posterior margin of which is produced at each end and at the middle into a point; scutellum broadly triangular, its surface flattened; elytra with strong and regular rows of punctures, the interstices finely transversely wrinkled, flavous, all the margins very narrowly black, the shoulders with a black spot, which is more or less connected with another one near the scutellum, forming a short semi-interrupted band, another spot placed below the middle occupies about five rows of punctures in a transverse sense; the underside, pygidium, the femora, and the tarsi (partly) black; the anterior femora more or less flavous below.

Hab. Mashonaland (G. Marshall). In the collection of the British Museum and that of my own.

This species differs from most of its African congeners in the strongly and closely punctured thorax in connection with the transverse band of the latter; in respect to the latter, there are not many species which are similarly marked; the sculpturing of the elytra also differs from most African *Cryptocephalinæ*, so that the species will not be very difficult to recognize. In the varieties, the black colour of the thorax predominates to such an extent as to leave the margins only of the flavous ground-colour, this latter being always wider, however, at the sides in all the forms; the elytral spots are likewise often reduced to one only, and are probably entirely absent occasionally; there are, however, only these three varieties before me, amongst the six specimens obtained by Mr. Marshall.

#### CRYPTOCEPHALUS DECEMNOTATUS, Suffr.

Of this very variable species, an interesting variety was obtained by Mr. Marshall in Mashonaland amongst the typical form with three elytral black spots. In this variety the spots are more or less enlarged, so as to form elongate short stripes, which in one specimen form a sutural and a transverse black band below the middle; this latter band has its upper margin deeply concave between each row of punctures. This variety has not been mentioned by Suffrian. The other characters peculiar to the species, viz. the four thoracic black spots and the punctured interstices of the elytra, are all present in this variety, thus proving its identity with the type.

#### CRYPTOCEPHALUS NIGROSUTURALIS, n. sp.

Black; the anterior margin and sides of the thorax flavous, the disc very finely rugose; elytra strongly punctate-striate and finely wrinkled, flavous, a spot on the shoulder and a broad sutural band, narrowed behind, black, 1897.]

Length  $1\frac{1}{4}-1\frac{1}{2}$  line.

Head black, finely rugosely punctured and sparingly pubescent ; antennæ rather short, entirely black, the third and fourth joint equal, the terminal joints slightly widened ; thorax with moderately rounded sides, the posterior angles not much produced, the entire surface finely rugose or wrinkled, making the punctuation very indistinct, black, the anterior margin very narrowly and the sides broadly flavous, the yellow colour at the latter place separated from the black portion by a strongly sinuate margin; scutellum very broad, its apex pointed, minutely punctured, black; elytra with regular and deep rows of punctures, the interstices very finely transversely wrinkled, flavous, the shoulders with a black spot, the suture with a broad black band, which widens strongly at the base, so as to very nearly join the shoulder-spot, below the middle the band narrows, but again gets slightly wider near the apex, to which it does not quite extend, the extreme lateral margin from below the base and the apical one are likewise black ; the pygidium, underside, and legs are entirely of that colour.

Hab. Mashonaland (G. Marshall); coll. Brit. Mus. and my own.

A well-distinguished species, on account of the sculpturing and pattern of its thorax and elytra.

## CRYPTOCEPHALUS NATALENSIS, n. sp. (Plate XVII. fig. S.)

Dark fulvous; thorax longitudinally strigose, its margins flavous; elytra deeply and closely punctured, the interstices longitudinally costate and with yellow short stripes.

Length  $1\frac{1}{2}$  line.

Head with some strong punctures and a central groove at the vertex fulvons; antennæ extending to about the middle of the elytra, black, the lower four joints fulvous, third and fourth joint equal, the fifth more elongate, the following joints slightly shorter; thorax proportionally long, the sides straight, narrowed in front, the entire surface covered with longitudinal strigæ, dark fulvous, the margins narrowly flavous, the sides more broadly so and the base with two very narrow flavous spots ; scutellum broadly truncate at its apex, flavous, margined with piceous; elytra slightly narrowed posteriorly, closely impressed with large, deep, and transversely-shaped punctures, the interstices strongly costate, those near the suture of sinuate shape, fnlvous; every alternate costa with two or three bright yellow stripes of various length, those at the apex and at the extreme margins nearly entirely of that colour; underside and legs entirely fulvous, the latter robust.

Hab. Natal (my collection).

Of this species I have now seen two specimens, which I formerly referred to *C. araticollis*, Chap., from Zanzibar; with this it entirely agrees in the unusual and interesting sculpturing of the thorax and the elytra: the eyes are likewise closely approached at the top of the head as in Chapuis's species; but as this author says nothing about the yellow margins of the thorax nor of the similarlycoloured stripes of the elytra, I cannot look upon his species as identical, unless he has forgotten to mention this fact.

## CRYPTOCEPHALUS LATEFASCIATUS, n. sp.

Below flavous; head and thorax rufous, the latter impunctate, with two large black spots; elytra very strongly punctate-striate, rufous, a transverse black band at the base and another before the apex.

Length 3 lines.

Of broad and robust shape; the head strongly punctured, with a broad longitudinal depression between the eyes, the latter not very deeply notched; anterior margin of the clypeus semicircularly concave, labrum fulvous; mandibles black; antennæ scarcely extending to the middle of the elytra, fuscous, the lower five joints flavous, the third, fourth, and fifth joint very elongate, nearly equal; thorax twice as broad as long, with a comparative broad lateral reflexed margin, the posterior angles prominent, furnished with some strong teeth, the surface entirely impunctate, rufous, the sides with a broad black band, which does not extend to the anterior margin; scutellum very broad, its apex truncate, the base with a fovea, fulvous, margined with black; elytra with a deep depression within the shoulders, very strongly punctate-striate, distinct to the apex, but not quite extending to the base, the rows somewhat irregular here and there, sometimes with double punctures, the interstices smooth and impunctate, rufous, shining, the base with a broad transverse black band, extending as far as the first row of punctures, leaving the sutural portion round the scutellum, as well as the lateral margin between the last row of punctures, of the ground-colour; this band occupies nearly a third portion of the length of the elytra, a second narrower band is placed below the middle, but extends to the suture, the lower edge of the basal band and the upper margin of the second band are rather strongly sinuate; pygidium, underside, and legs pale fulvous, clothed with short yellow pubescence.

Niger-Benué Exped. (Staudinger) (my collection).

Evidently closely allied to *C. sulcifrons*, Suffr., but that species is described with a finely punctured thorax, with the elytral interstices likewise punctured, and with a black elytral band placed at the apex. *C. tempestivus*, Suffr., also resembles the present species in colour and in the position of the elytral bands, but has a black head, a distinctly punctured thorax, very regular elytral rows of punctures with punctured interstices, and is much smaller.

CRYPTOCEPHALUS WESTWOODI, n. sp. (Plate XVII. fig. 9.)

Pale flavous; the head partly and two longitudinal thoracic bands piceous; elytra deeply punctate-striate, the punctures piceous, each with a black spot on the shoulder, two others placed transversely below the middle, and a reddish-fulvous angular band before the middle.

Length  $2\frac{1}{2}$  lines.

Head rugosely punctured, more or less dark brown, with the margins round the eyes and the clypeus flavous; antennæ short, not extending much beyond the base of the thorax, the lower five joints flavous, the others black, the second and third joint equal in length, the following two joints more elongate, equal, the others only about one-half longer than broad; thorax of usual shape, the sides moderately rounded, the surface very sparingly and finely punctured, flavous, the basal margin narrowly black, the others brownish, the disc with two longitudinal nearly black bands from base to apex, their margins stained with brown ; scutellum flavous, the base black; elvtra with the shoulders scarcely prominent, impressed with large, round, and distantly-placed piceous punctures, flavous, the sutural and lateral margins posteriorly brown, the shoulders with a black mark, followed by a trausverse, short, strongly-angulate, reddish-fulvous band, which does not extend to either margin, four round black spots are placed transversely below the middle; pygidium with two large dark brownish patches; underside and legs pale fulvous, the breast darker; prosternum broad, its base bisinuate.

Hab. Natal, Estcourt (G. Marshall).

This is a curiously-marked species, of which two specimens are before me. I only know of one or two similar instances in which the elytral markings are of two shades amongst the African species of Cryptocephalinæ; as both the specimens are exactly similar in every respect, 1 have no doubt that it is the normal coloration of the species, which would find its place near *C. bijasciatus*, Fabr., or allies.

## CRYPTOCEPHALUS AGGREGATUS, n. sp.

Dark blue or greenish ; the tibiæ and tarsi more or less fulvous ; thorax strongly rugose-punctate ; elytra with deep and very close rows of punctures, the interstices also strongly and closely punctured.

Length  $1\frac{1}{2}$ -2 lines.

Head closely rugose-punctate, the eyes rather closely approached at the top, broadly triangularly notched; antennæ black, the third and fourth joint equal, the following joints rather strongly triangularly widened; thorax with slightly rounded sides, strongly narrowed anteriorly, the posterior margin without teeth, the surface very strongly convex, deeply rugose-punctate, the punctures round, extremely closely placed, the interstices reticulate and partly confluent; scutellum broad, with a few fine punctures; elytra narrowed posteriorly, the shoulders rounded, not prominent, the surface closely and entirely covered by deep transversely-shaped punctures, which are rather indistinctly arranged in rows and divided by slightly smaller punctures; pygidium black, finely rugose; underside and the femora bluish black, finely punctured and pubescent; tibiæ and tarsi more or less fulvous; prosternum broad, its base nearly truncate.

Hab. Niger-Benué Expedition (Staudinger). PROC. ZOOL. SOC.—1897, No. XVII.

[Feb. 2,

The sculpturing of this species is quite exceptional amongst the African representatives of the genus, but it approaches in that respect, as well as in colouring, *C. smaraydulus*, Fabr.; but the present species has entirely black antennæ, rounded shoulders, and the arrangement of the punctures in rows can only be seen in certain lights, as they are so closely approached and having the interstices nearly as strongly punctured.

## CRYPTOCEPHALUS TRISULCATUS, Suffr.

Black, clypeus white; thorax and elytra fulvous, the former with two oblique black bands; elytra moderately strongly punctured, a spot on the shoulder and two others, obliquely-transverse, near the apex black; femora black and white.

Var. Thorax with four black spots, elytra without any spots.

Length 2 lines.

Head black, very finely punctured at the vertex; the clypeus and the sides below the eyes vellowish white; antennæ slender, black, the lower five joints testaceous, the third joint one-half longer than the second, the fourth shorter than the fifth joint, terminal joints elongate in the male, shorter in the other sex; thorax strongly narrowed in front, the sides evenly rounded, posterior margin bisinuate at the sides, the surface nearly impunctate, fulvous, the posterior angles flavous, all the margins narrowly black, the middle of the disc with two oblique longitudinal bands, not extending to the apex, and scarcely to the base; scutellum black; elytra rather finely punetate-striate near the suture, the punctures nearly obsolete at the base, the sides more strongly and closely punctured, with the interstices slightly convex, the lateral margins posteriorly as well as the apical ones narrowly black, a black spot is placed on the shoulder and two others near the apex, of these one is situated across the suture, the other rather larger one near the lateral margin and a little higher than the sutural spot; underside and the femora black, the anterior femora with their lower surface nearly white; tibiæ fulvons, or stained with piceous at the apex; prosternum with two small teeth at its base, yellowish white, as well as the mesosternum and the space between the posterior coxæ, the entire underside nearly impunctate.

Hab. Natal, Estcourt (G. Marshall).

The position of the elytral spots differs from that of any other African species except *C. erythromelas* with which I am acquainted, and the white clypeus, prosternum, and bicolored anterior femora are likewise characteristic of the present insect. The variety differs in no way from the type except in the absence of the elytral spots and in the breaking up into four spots of the thoracic bands; the former are placed quadrately, thus indicating the oblique shape of the bands in the normal form, marking their commencement and end.

I have given here a new description of Suffrian's species, with which the present insect agrees so closely that I must identify it with it, although the specimens before me are smaller than the size given by Suffrian; this author had also probably old specimens 1897.]

before him in which the white colour of the clypeus &c. had become discoloured. The variety I mention has not been noticed by Suffrian, and my description of the spotted form is considered by him to represent a rare variety; that the Natal insect may, however, prove to be of another closely allied species is not impossible.

# CRYPTOCEPHALUS UNICINCTUS, n. sp.

Black, the base of the antennæ and the tibiæ more or less fulvous; thorax very minutely punctured, fulvous, with more or less confluent black bands; elytra strongly punctate, the insterstices finely punctured, fulvous, the margins narrowly and a short lateral stripe black.

Length 2 lines.

Head strongly rugose and finely pubescent, black; antennæ extending beyond the middle of the elytra, black, the lower five joints fulvous, the second and third joints short, nearly equal, terminal joints rather elongate, shorter in the female as well as the entire antennæ; thorax strongly narrowed in front, the sides but slightly rounded, the disc very minutely and irregularly punctured, reddisb fulvous, the sides occupied by two broad black bands of variable width, often connected with another small black spot near the margin, but as frequently separated from it and narrower; scutellum not longer than broad, black; elytra with deep rows of slightly transversely-shaped punctures, the interstices also with a single row of minute punctures, the basal, sutural, and lateral margins (the latter at the posterior portion only) black, the surface pale fulvous, with a short black band from the shoulder to below the middle placed between the seventh and ninth rows of punctures; underside and pygidium black, finely pubescent; the prosternum, mesosternum, and a spot between the posterior coxæ yellow; legs black, the tibiæ more or less fulvous at the base and apex.

Hab. Natal, Estcourt (G. Marshall).

The single elytral stripe at the sides and the rugose and black head, as well as the other details pointed out, will separate this species from any of its African congeners. I have seen four specimens only, varying in the amount of black on the thorax and legs.

CRYPTOCEPHALUS BIMACULICOLLIS, n. sp. (Plate XVII. fig. 12.)

Fulvous, thorax impunctate, the disc rufous, the margins flavous, the base with two black spots; elytra finely punctate-striate, yellow, a transverse band at the base and a narrower one near the apex black.

Length 2 lines.

Head with a few fine punctures, the vertex fulvous or piceous, the lower portion flavous; labrum and palpi testaceous; antennæ extending to the middle of the elytra, shorter in the female, the lower five or six joints flavous, the others fuscous, third joint but slightly longer than the second, terminal joints elongate; thorax strongly narrowed in front, the sides nearly straight, the surface only perceptibly punctured when seen under a strong lens, the entire disc almost occupied by two broad rufous bands, which sometimes unite or are only divided by a very narrow streak of the ground-colour, the anterior margin and the sides more broadly bright yellow, the base with two small black spots, all the extreme margins likewise black; scutellum slightly longer than broad, black; elytra slightly narrowed posteriorly, the space surrounding the scutellum rather raised, the punctures fine, nearly obliterated at the base, the interstices flat, slightly wrinkled here and there, flavous, the base with a transverse black band, which is gradually narrowed towards the suture, but leaves the extreme lateral margin of the ground-colour, another narrower black band is placed near the apex, with its upper and lower margins irregularly indented; underside, legs, and pygidium fulvous, finely pubescent.

Hab. Natal, Estcourt (G. Marshall).

This pretty species seems very nearly to resemble in coloration C. decoratus, Reiche, from Abyssinia, but the position of the elytral bands and that of the spots of the thorax is different: in the latter respect I am not acquainted with any other species from Africa being similarly marked with three shades of colour, except in the case of C. decoratus; but in that species the black spots of the thorax are placed at the middle and not at the base, the antennæ are entirely fulvous, and the elytral bands broader. C. bifasciatus, Fabr., has an entirely fulvous thorax, with two central black spots and differently shaped elytral bands. There are four specimens before me.

#### CRYPTOCEPHALUS ATROCINCTUS, n. sp.

Head, antennæ, and the breast black ; thorax fulvous, with pale margins and two broad black bands, finely punctured; elytra moderately deeply punctured, flavous, with a sutural and two lateral black longitudinal bands abbreviated posteriorly.

Length 2 lines.

Head black, rather closely punctured; the clypens and a narrow stripe in front of the eyes grevish or yellowish white; antennæ extending to about the middle of the elytra, slender, black, the lower four or five joints more or less fulvous at the base, third and fourth joint nearly equal, the following more elongate, terminal joints slightly thickened; thorax twice as broad as long, narrowed in front, the lateral margins nearly straight, the basal margin with some small teeth at the angles, the surface very finely and rather closely punctured, reddish fulvous, the margins flavous, the sides more broadly so, extreme basal margin black, the disc with two broad oblique black bands, not extending to the anterior margin and sometimes reduced to two small spots only; scutellum nearly subquadrate, black with a fulvous spot; elytra moderately strongly punctate-striate, the punctures at the sides larger and more closely placed, the surface bright yellow, with three black longitudinal bands, not extending to the apex, the sutural one narrowed at the base but widened into a slightly triangular shape at the apex and extending to the second row of punctures, the lateral bands occupying four rows of punctures but of the same width as the sutural band, with the margins more regular and less dentate than in the last named, the lateral margin also more or less black posteriorly; underside black, more or less marked with flavous; legs flavous, the femora often partly black or fulvous; prosternum broad, flavous, impunctate; pygidium black, its apex more or less fulvous.

Hab. Natal, Estcourt (G. Marshall).

A pretty species allied to *C. vittiger*, Suffr., and *C. contrarius*, Chap., in coloration, but differing in the closely punctured head and the pale margins or stripes surrounding the eyes, and in the yellow clypeus: the stripes of the elytra are also differently shaped; but the amount of black at the underside and of the thorax is very variable, in one specimen the black bands of the latter are nearly united at the middle by a narrow transverse streak, leaving a fulvous patch at the base which is again divided by a central short narrow streak of piceous; the antennæ are also variable in colour. *C. vittiger* has an entirely black head, the elytral bands are differently shaped, and the underside also varies.

#### CRYPTOCEPHALUS ALLUAUDI, n. sp.

Black and yellow; head with two fulvous spots on the vertex; thorax impunctate, black, the sides, anterior margin, and a spot at the base yellow; elytra strongly punctate-striate, black, a narrow sutural and a broad lateral band yellow; legs flavous.

Var. Elytra black, the shoulders and the apex with a short yellow spot.

Length 1 line.

Of posteriorly slightly narrowed shape; the head rather closely punctured at the middle, black, the vertex with two obscure fulvous spots; the clypeus, a narrow space in front of the eyes. and the labrum yellow; antennæ extending slightly beyond the middle of the elytra, the lower five joints flavous, the others black, the basal joint much thickened, the third and fourth equal, the terminal joints gradually but rather strongly incrassate; thorax twice as broad as long, strongly narrowed in front, the sides straight or very nearly so, with a narrow reflexed margin, the angles not prominent, the surface nearly impunctate, a few scarcely perceptible punctures only being visible under a strong lens, black, the anterior margin narrowly, a broad band at the sides and a square-shaped spot in front of the scutellum yellow; scutellum rather broad, its apex truncate, yellow, narrowly margined with black; elytra narrowed posteriorly, with deep rows of punctures, distinct to the apex, the interstices slightly transversely wrinkled here and there, the colour black, a narrow, anteriorly widened sutural stripe, not extending to the apex, and a broad band at the sides not extending to the margins nor to the apex, but of variable width, yellow; underside finely pubescent, black; the prosternum, mesosternum, the last abdominal segment, and the legs flavous, the latter rather darker; prosternum subquadrate, its base slightly

concave, the sides with a raised margin; pygidium fulvous with a black patch at the middle.

Hab. Assinie, W. Coast of Africa (Ch. Alluaud).

Likewise allied in coloration to *C. vittiger*, Suffr., *C. jucundus*, Dohrn, but differing in the colour of the thorax, scutellum, &c. The amount of black and yellow is very variable, the bands of the thorax and elytra differing much in their width; in the variety there are only four yellow spots present on the elytra, indicating the bands, and it is probable that the other extreme in which the yellow predominates may be found: the small subquadrate yellow spot in front of the scutellum is a good mark of recognition in this species.

# CRYPTOCEPHALUS PORICOLLIS, n. sp.

Dark brown; antennæ and legs flavous; thorax deeply punctured and longitudinally strigose, the margins and two spots flavous; elytra deeply punctate-striate, the interstices costate, flavous, an obscure transverse band before, another below the middle, and the apex dark brown.

Length 1 line.

Head with a few punctures at the vertex and round the eyes, the former brown, the latter closely approached at the top, the intermediate space and the clypeus flavous; antennæ nearly extending to the middle of the elytra, flavous, the basal joint much thickened, the second short, the third and fourth equal, slender, the terminal joints more elongate, slightly thickened; thorax twice as broad as long, the lateral margin straight, narrowed towards the apex, the surface very closely and deeply punctured, the punctures rather more widely placed near the base, the interstices everywhere longitudinally raised and obliquely directed towards the base, dark brown, the anterior and lateral margins, the former very narrowly, and two round spots near the base, flavous, extreme basal margin black; scutellum triangular, its apex raised; elytra subcylindrical, the punctured striæ deeply placed, all the interstices strongly costate, flavous, this colour interrupted by two obscure transverse brown bands before and below the middle, the second band is generally widened near the suture, the apices are likewise more less brown; the underside is sparingly punctured, dark brown; the prosternum is broad and widened towards the base, finely punctured.

Hab. Madagascar, Diego-Suarez (Ch. Alluaud).

A pretty little species, much distinguished by the sculpture of the thorax, and evidently closely allied to several other Madagascar species described by the late Duvivier, having the elytra similarly strongly costate; in none of these, however, is the thorax coarsely punctured and strigose.

## CRYPTOCEPHALUS ARMATUS, n. sp.

Black; the clypeus, basal joints of the antennæ, and the legs flavous; thorax finely and closely punctured, flavous with two large black spots; elytra strongly punctate-striate, the interstices closely punctured, flavous, a sutural band and two large spots at the sides black.

Length  $1\frac{1}{4}$  line.

Head very broad, finely and closely punctured, black ; the clypeus separated from the face by the perfectly straight lower edge of the latter and placed at a deeper level, flavous, bounded at each side by a long triangular projection of the head, mandibles large and broad; antennæ short, black, the lower five joints flavous, third, fourth, and fifth joints equal, short, terminal joints transversely widened; thorax strongly transverse, but slightly widened at the middle, the lateral margins nearly straight, the surface closely and finely but distinctly punctured, flavous, the extreme margins dark, the disc with two large transversely-shaped black spots, occupying the greater part of the sides; scutellum broad, its apex truncate, black; elytra with regular rows of strong punctures which get finer towards the apex, the interstices also very distinctly and closely punctured, flavous, the suture with a narrow black band which below the middle widens into a lancet-shaped spot, the sides with two large black spots, one on the shoulder and the other immediately below it, both large and of irregular shape, the lower spot ending at some distance from the apex; below black, the apex of the abdomen and the pygidium flavous, the latter with a small black spot at the apex; legs fulvous.

Hab. Niger-Benué Exped. (Staudinger).

Of this little species, which is much distinguished by the shape and structure of the head, I received a single example from Dr. Staudiuger.

# CRYPTOCEPHALUS MARSHALLI, n. sp. (Plate XVII. fig. 10.)

Head yellow, spotted with black; thorax flavous, finely punctured, with a transverse band at the middle and the base black; scutellum black; elytra moderately strongly punctate-striate, flavous, the margins narrowly, four spots placed quadrately at the base, and another  $\Lambda$ -shaped spot below the middle at the sides, black; underside and legs fulvous, spotted with black.

Length  $2\frac{1}{2}$  lines.

Head closely and strongly punctured; the vertex black, with two small flavous spots; the lower portion flavous, with a black spot at the base of the antennæ, the latter scarcely extending to the middle of the elytra, fulvous; the terminal four or five joints more or less black, the third joint twice as long as the second, fourth slightly longer than the third, the following joints rather strongly widened; thorax strongly transverse, rather short, the sides rounded, strongly narrowed in front, the surface closely and finely punctured, flavous, the middle of the disc occupied by a narrow transverse black band, not extending to the sides but connected with another narrower band of irregular shape at the base by a narrow central streak of black and also sometimes at each end; scutellum not longer than broad, black; elytra not very strongly punctured, the interstices flat and impunctate, the sutural, basal, and the lateral margin posteriorly black, below the base four black spots of irregular shape are placed in an oblique quadrate position, of these, one is situated on the shoulder, the other directly below it, the other two between the lateral spots and the suture, also below each other, occupying the third and fourth and the fifth, sixth, and seventh interstices respectively, the  $\Lambda$ -shaped marked is placed below the middle uear the lateral margin and is sometimes divided into two irregular spots; pygidium fulvous, finely pubescent; underside and legs of the same colour; the sides of the breast and a spot on the upper portion of the femora blackish.

Hab. Natal, Estcourt (G. Marshall).

In the markings of the thorax this species resembles C. denticulatus, Suffr., of which it may possibly be an extreme variety; I have, however, two specimens before me which almost entirely agree with each other, and in these the elytral markings are quite different from the above-named species, especially in the very narrow black sutural and lateral margin (the last of which commences at the middle only). Suffrian also speaks of finely wrinkled and punctured elytral interstices, of which there is no trace in the present insect.

#### CENOBIUS FLAVITARSIS, n. sp.

Black, shining, the basal joints of the antennæ, the apex of the tibiæ, and the tarsi flavous; thorax strongly punctured; elytra very strongly punctate-striate, the interstices longitudinally costate at the sides.

Length  $\frac{3}{4}$  line.

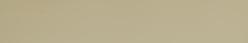
Head black; the entire vertex and the sides occupied by the eyes, which meet at the top; antennæ extending a little beyond the base of the thorax, black, the basal five joints flavous, third and fourth joint very small, terminal joints distinctly widened; thorax about one-half broader than long, the sides nearly straight and much narrowed anteriorly, the surface with a deep transverse oblique groove at each side, strongly and rather closely punctured, the punctures somewhat oblong in shape, the basal margin with a row of deep and closely placed punctures; scutellum narrowly elongate; elytra with very deep and close rows of punctures, the shoulders very prominent, the basal margin in shape of a ridge, the interstices longitudinally costate, more strongly so at the sides than at the disc; the underside, pygidium, and the legs black, the extreme apex of the tibiæ and the tarsi flavous.

Hab. Mashonaland (G. Marshall). A single specimen in the British Museum collection.

Allied to *C. nigritellus*, Suffr., but at once distinguished by the flavous tarsi and the sculpturing of the thorax &c. *C. suffriani*, Jac., has the head strigose at the vertex, the antennæ scarcely widened, the thorax without lateral depressions, and the tarsi black.

CHLAMYS NATALENSIS, n. sp.

Obscure fulvous or piceous ; the antennæ and the tibiæ fulvous ;



ZE

STISH MUSTUR

adl

.